

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A process for the production of 3-methylthiopropional (MTPA), ~~comprising: which comprises~~  
\_\_\_\_\_ reacting a reaction medium comprising ~~methyl mereaptan~~ methylmercaptan and acrolein in the presence of a catalyst comprising an acid and an organic base, wherein ~~characterised in that the organic base is a N-alkyl morpholine compound~~ N-alkyl-morpholine.
2. (Currently Amended) ~~A process as claimed in claim 1 in which the catalyst~~  
The process according to claim 1, wherein the N-alkyl-morpholine is a C<sub>1</sub> to C<sub>6</sub>-alkyl  
morpholine alkyl-morpholine.
3. (Currently Amended) ~~A process as claimed in~~ The process according to claim  
2, wherein the C<sub>1</sub> to C<sub>6</sub> alkyl-morpholine is methylmorpholine or ethylmorpholine. in which  
the catalyst is methyl morpholine or ethyl morpholine.
4. (Currently Amended) ~~A process as claimed in~~ The process according to claim  
1, wherein in which the mole ratio of N-alkyl-morpholine-organic base to methylmercaptan  
methyl mereaptan is from 0.0001 to 0.05.
5. (Currently Amended) ~~A process as claimed in claim 4 in which~~ The process  
according to claim 4, wherein the mole ratio of N-alkyl-morpholine to methylmercaptan  
organic base to methyl mereaptan is from 0.001 to 0.01.
6. (Currently Amended) ~~A process as claimed in~~ The process according to claim  
1, wherein in which the mole ratio of methyl mereaptan methylmercaptan to acrolein is from  
0.9 to 2.

7. (Currently Amended) ~~A process as claimed in claim 6~~ The process according to claim 6, wherein ~~in which the mole ratio of methyl mercaptan~~ methylmercaptan to acrolein is from 1 to 1.2.

8. (Currently Amended) ~~A process as claimed in claim 1 in which the catalyst further comprises~~ The process according to claim 1, wherein the acid is an organic acid.

9. (Currently Amended) ~~A process as claimed in~~ The process according to claim 8, wherein ~~in which the organic acid is selected from the group consisting of formic acid, acetic acid, propanoic acid, and butanoic acid.~~

10. (Currently Amended) ~~A process as claimed in~~ The process according to claim 9, wherein ~~in which the organic acid is acetic acid.~~

11. (Currently Amended) ~~A process as claimed in~~ The process according to claim 8, wherein ~~in which the mole ratio of N-alkyl-morpholine-catalyst to organic acid is from 0.1 to 2.~~

12. (Currently Amended) ~~A process as claimed in claim 11 in which~~ The process according to claim 11, wherein the mole ratio of N-alkyl-morpholine-catalyst to organic acid is from 0 to 1.

13. (Currently Amended) ~~A process as claimed in~~ The process according to claim 1, wherein the process is carried out at a temperature of from 20 to 70°C.

14. (Currently Amended) ~~A process as claimed in~~ The process according to claim 13, wherein the process is carried out at a temperature of from 30 to 50°C.

15. (Currently Amended) ~~A process as claimed in~~ The process according to claim 1, wherein the process is carried out under atmospheric pressure.

16. (Currently Amended) A process for the production of 2-hydroxy-4-(methylthio)butanenitrile, comprising: ~~which comprises~~

\_\_\_\_\_ (a) \_\_\_\_\_ a first step of reacting a reaction medium comprising ~~methyl mercaptan~~ methylmercaptan and acrolein in the presence of a catalyst comprising an acid and an organic base characterised in that the organic base is a N-alkyl morpholine compound to produce a product stream comprising 3-methylthiopropenal and said catalyst, wherein the organic base is a N-alkyl-morpholine; and

\_\_\_\_\_ (b) \_\_\_\_\_ a second step of reacting said product stream with hydrogen cyanide in the presence of a catalyst ~~thereby producing 2-hydroxy-4-(methylthio)butanenitrile~~.

17. (New) The process according to claim 16, wherein the N-alkyl-morpholine is a C<sub>1</sub> to C<sub>6</sub> alkyl-morpholine.

18. (New) The process according to claim 17, wherein the C<sub>1</sub> to C<sub>6</sub> alkyl-morpholine is methylmorpholine or ethylmorpholine.

19. (New) The process according to claim 16, wherein the mole ratio of N-alkyl-morpholine to methylmercaptan in step (a) is from 0.0001 to 0.05.

20. (New) The process according to claim 19, wherein the mole ratio of N-alkyl-morpholine to methylmercaptan in step (a) is from 0.001 to 0.01.

21. (New) The process according to claim 16, wherein the mole ratio of methylmercaptan to acrolein in step (a) is from 0.9 to 2.

22. (New) The process according to claim 21, wherein the mole ratio of methylmercaptan to acrolein in step (a) is from 1 to 1.2.

23. (New) The process according to claim 16, wherein the acid in step (a) is an organic acid.

24. (New) The process according to claim 23, wherein the organic acid is selected from the group consisting of formic acid, acetic acid, propanoic acid, and butanoic acid.

25. (New) The process according to claim 24, wherein the organic acid is acetic acid.

26. (New) The process according to claim 23, wherein the mole ratio of N-alkyl-morpholine to organic acid in step (a) is from 0.1 to 2.
27. (New) The process according to claim 26, wherein the mole ratio of N-alkyl-morpholine to organic acid in step (a) is from 0 to 1.
28. (New) The process according to claim 16, wherein step (a) is carried out at a temperature of from 20 to 70°C.
29. (New) The process according to claim 28, wherein step (a) is carried out at a temperature of from 30 to 50°C.
30. (New) The process according to claim 16, wherein step (a) is carried out under atmospheric pressure.
31. (New) A process for the production of 2-hydroxy-4-(methylthio)butanenitrile, comprising:  
  
reacting a reaction medium comprising 3-methylthiopropional (MTBA) and hydrogen cyanide in the presence of a catalyst comprising an organic base, wherein the organic base is a N-alkyl-morpholine.
32. (New) The process according to claim 31, wherein the N-alkyl-morpholine is a C<sub>1</sub> to C<sub>6</sub> alkyl-morpholine.
33. (New) The process according to claim 32, wherein the C<sub>1</sub> to C<sub>6</sub> alkyl-morpholine is methylmorpholine or ethylmorpholine.